

What is claimed is:

1. A programmable gas generator, comprising:  
a controller, receiving information indicating an amount  
5 of gas to be generated; and

a programmable multipart propulsion chip, having a  
plurality of individually accessible gas generation elements,  
each of which is accessible to produce a gas output, and each  
of which, once activated, produces a measured amount of gas,  
10 said chip being activated by said controller based on said  
amount of gas to be generated.

2. A generator as in claim 1, wherein said propulsion  
chip is used to drive an air bag, and wherein said controller  
15 includes a sensor which senses at least one parameter.

3. A device as in claim 1, wherein each said element  
includes a debris restraining part.

20 4. A device as in claim 1, wherein said plurality of  
devices are located on opposing surfaces.

5. A device as in claim 1, wherein said chamber is cylindrical and said plurality of devices are circumferentially spaced from one another.

5 6. A generator as in claim 1, further comprising storing a plurality of profiles of air bag deployment to drive said individually accessible gas generation elements, sensing current characteristics, and selecting one of said profiles and using said one profile to drive the elements.

10 7. A generator as in claim 1 wherein each of said gas generation elements includes a bursting spot, having a strength which is intentionally degraded, so that the element bursts at said bursting spot.

15 8. A generator as in claim 1, wherein said plurality of gas generation elements are arranged in a circumferential direction.

20 9. A generator as in claim 1, further comprising a cylindrical combustion chamber, containing said gas generation elements.

10. A generator as in claim 9, wherein said combustion chamber has at least one cylindrical wall, and further comprising placing said said gas generation elements against a wall of said cylindrical combustion chamber.

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11. A method of operating an airbag, comprising:

providing a plurality of sensors in an installed vehicle, each said sensor sensing a characteristic of operation of the installed vehicle;

10 providing a programmable propulsion chip, which produces an amount of gas output indicative of a control that is applied thereto, wherein said amount is controllable on individual unit basis; and

15 storing a plurality of airbag inflation profiles and selecting one of said profiles based on said sensor characteristic.

12. A method as in claim 11 wherein said sensors include an acceleration sensor.

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13. A method as in claim 11 wherein said sensors include a weight sensor.

14. A method as in claim 11 wherein said sensors include a sensor which senses positions of different bodies within the vehicle.

5 15. An airbag deployment system, comprising:

a sensor, sensing at least a deceleration of the vehicle;

a memory, storing a plurality of profiles of airbag deployment, said plurality of profiles based on a kind of deceleration and ideal profiles for said kind of deceleration;

10 and

a programmable multipart propulsion chip, having a plurality of elements each of which is individually accessible to produce unmeasured gas output, said propulsion chip being driven by said profiles to produce a gas output based on said  
15 profiles.